

## **ANALYTICAL & CONSULTING CHEMISTS**

## **Environmental Chemists, Inc.**

6602 Windmill Way, Wilmington, NC 28405 • 910.392.0223 Lab • 910.392.4424 Fax 710 Bowsertown Road, Manteo, NC 27954 • 252.473.5702 Lab/Fax 255-A Wilmington Highway, Jacksonville, NC 28540 • 910.347.5843 Lab/Fax

info@environmentalchemists.com

December 1, 2018

Brunswick County Public Utilities Post Office Box 249 Bolivia, NC 28422 Attn: Glenn Walker

Report #2018-17977 Collected – November 1, 2018

Enclosed please find your analytical report.

Sincerely,

Tammy Duran Environmental Chemists, Inc.

ANALYTICAL RESULTS: Perfluorinated Chemicals by EPA 537 Rev 1.1 Safe Drinking Water Analysis

Page 3 of 4

**Customer: Environmental Chemists** NLS Project: 311677

Project Description: PFCs by EPA 537 w/GenX

Project Title: Template: 537PPTGENX Printed: 11/30/2018 17:36

Sample: 1092155 45403 Collected: 11/01/18 Analyzed: 11/22/18 - Analytes: 13	ytes: 13						
ANALYTE NAME	RESULT	UNITSWWB	몯	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt		6.6	21		
perfluorohexanoic acid (PFHxA)	8.85	ppt	_	1.3	4.0	-	
perfluoro-2-propoxypropanoic acid (GenX)	3.7	ppt	_	0.73	2.3	-	
perfluoroheptanoic acid (PFHpA)	9.27	ppt		0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	S	ppt	_	2.8	8.8		
perfluorooctanoic acid (PFOA)	6.63	ppt		1.2	3.9		
perfluorononanoic acid (PFNA)	ND	ppt		1.5	4.9		
perfluorooctanesulfonic acid (PFOS)	10.1	ppt		1.7	5.3		
perfluorodecanoic acid (PFDA)	[0.96]	ppt		0.90	2.7		
perfluoroundecanoic acid (PFUnA)	ND	ppt	-1	1.0	3.0		
perfluorododecanoic acid (PFDoA)	ND	ppt		1.9	6.1		
perfluorotridecanoic acid (PFTrDA)	ND	ppt		3.2	10		те оп воде при пападальня выправанений на применений на применений на применений на применений на применений н
perfluorotetradecanoic acid (PFTA)	ND	ppt	_	2.8	8.9	-	
C13-PFHxA (SURR)	57.729%						SR S
C13-PFDA (SURR)	82.62%		_				S

NOTES APPLICABLE TO THIS ANALYSIS:

J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation.

S = This compound is a surrogate used to evaluate the quality control of a method.

SR = Surrogate recovery was outside QC limits.
C13-PFHxA recovered below QC limits.

ANALYTE NAME	RESULT	UNITSWWB	믇	LOD	<u>ــــــــــــــــــــــــــــــــــــ</u>	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	-	6.6	21		
perfluorohexanoic acid (PFHxA)	10.3	ppt		1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	3.69	ppt	_	0.73	2.3		
perfluoroheptanoic acid (PFHpA)	12	ppt		0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[2.89]	ppt	هـــــــــــــــــــــــــــــــــــــ	2.8	8.8		
perfluorooctanoic acid (PFOA)	7.2	ppt		1.2	3.9		***************************************
perfluorononanoic acid (PFNA)	ND	ppt	-1	1.5	4.9		
perfluorooctanesulfonic acid (PFOS)	9.32	ppt	-	1.7	5.3		
perfluorodecanoic acid (PFDA)	[1.04]	ppt	_	0.90	2.7	-	_
perfluoroundecanoic acid (PFUnA)	ND	ppt	>	1.0	3.0		
perfluorododecanoic acid (PFDoA)	ND	ppt		1.9	6.1	Account to the second s	
perfluorotridecanoic acid (PFTrDA)	ND	ppt	_	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt		2.8	8.9		
C13-PFHxA (SURR)	60.386%			***************************************			SR S
C13-PFDA (SURR)	89.2%						S

NOTES APPLICABLE TO THIS ANALYSIS:

J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation.

S = This compound is a surrogate used to evaluate the quality control of a method.

SR = Surrogate recovery was outside QC limits.

C13-PFHxA recovered below QC limits.



# TROUNTAL CHEMISTS, NO

NCDENR: DWQ CERTIFICATION # 94 NCDHHS: DLS CERTIFICATION # 37729

6602 Windmill Way Wilmington, NC 28405 OFFICE: 910-392-0223 FAX 910-392-4424 info@environmentalchemists.com

## COLLECTION AND CHAIN OF CUSTODY

CLIENT: OPELVER		1 DOMAR	P.	PROJ	PROJECT NAME:	ij							SERVICE SERVICE	ğ	9		RC COMPANY	N	1	t d	れたった	-
ADDRESS: P.O. BOX	のもん			SSI	CONTACT NAME:		6	してし	2	スヘア		***************************************		PO NO.	Ö		k	C		in the same	ľ	HISTORY
BOLKER D.C.	アスエン	CONTRACTOR OF THE PROPERTY OF	THE CONTRACT OF THE CONTRACT O	REPO	REPORT TO:		いかろべ	À						ĕ∣	Ž	PHONE/FAX:	NA STATE OF THE ST	No. application as a property of the control of the	None Control of Contro	Making and Applications of the Control of the Contr	MARKALINE STATE ST	EUROPERICO SERVICIONI
	Market and the second s	AND DESCRIPTION OF THE PROPERTY OF THE PROPERT		COPY TO:	Ö	destaurant des							en .	Ta	0	email: alcon. Walker allows with the	2	7.75	AC 7.7.2 No.	276	~	
Sampled By:		ろマス		Committee of the commit	SAMPLE	공	TYPE:   = Influent	m 📗	= Eff	ent	€	٤	2	2	TO 1	Effluent W = Well ST = Stream SO - Soil SI - Stides Other	2					
		Collection	3		Ite	er )	8	1			38	S	PRESERVATION	<b>Z</b>	-1		136c an 1	Office	ge,		SE CONTRACTOR DE SE CON	DESCRIPTION OF THE PERSON OF T
Sample Identification	Date.	T e	or o	Sample Type	Compos or Grab	Contain (P or G	Chlorin mg/L	LAB ID NUMBEI	NONE	HCL	H2SO4	ниоз	HOAN		In acetate	ADHTC A	ANALYSIS REQUESTED	S PR	SES	Ä		
				Έ	ဂ	(9)			_	_	_	4	_	-	-	поменения в принципальный в пр	Colmination are consistent and	A SECTION ASSESSMENT A	4)Szyktecsionaugyggagg	Name of the Party	Withington Market and American	MANUFACTURE OF THE PERSON NAMED IN COLUMN
110118.50	11-1-18	0930	15.5	7%	<u></u>	O		2010L	Maria de Calendario de Calenda	жениции	Photonoxy gays.	No.	en e	***************************************	* TANKS INC.	mで り い	(V)	-	2	アカスメ		
)	ACTURE OF THE PROPERTY OF THE		j		ဂ	9					4	-	$\dashv$		+	OF STREET STREET	and the second	1	Westernament	Newsplanson and the second	disconnection of the second	CONTRACTOR OF THE PERSON
	11-1-18	0930	10.0	Ş	<u>(</u>	G		<b>tarsh</b>		Rakolo Persidentala	Todomien (a.e.	lu <del>na</del> aponto.	tentralisas et è-au	acintron savore	en e			di-comment				
e de la companya de	THE RESERVE AND THE PROPERTY OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN T				C	Q						$\dashv$		$\dashv$	$\dashv$	PARTICIPATION OF THE PARTICIPA	MACHANIZATION SALESANDER	4	BUTTO	enter incompany of the second	Newson property and the second	Magdownoocoupus
CONTRACTOR OF THE OTHER PROPERTY WITH A STATE OF THE OTHER PROPERTY OTHER PROPERTY OF THE OTHER PROPERTY OF THE OTHER PROPERTY OTHER P	Parallel State Company of the Compan				G	G		TO CONTROL OF THE PROPERTY OF THE PARTY OF T				and the second s		<b>Irra</b> litation and the same of	erronans see			***********				
					0	9					and the second second		untinoscopio (	OF THE STREET, AS	e de la companya de		-	***************************************				
		AND THE PERSON NAMED OF PERSONS ASSESSMENT ASSESSMENT OF PERSONS ASSESSMENT OF PERSONS A	AND MAKES AND AND AND ADDRESS OF THE PARTY O		> G	g			ļ	-	+	+	+	┿	╀			AAAA Secretario (Maria	*Deleganism deleganism			Name of the local division of the local divi
	Companies constitution of the constitution of				0	רוכ					Productive State	STATE OF STREET, TOPOS	electron de la constante de la	alest and the second	F-Windowski sake		~					
	energi variancis consequente de la majoriero		MANAGEMENT OF THE STREET OF TH				The second secon	CHARLES CONTRACTOR CON		-	ł	╀	ł	1	-			(O)OOMBREEDWIND	MICHIGAN CONTRACTOR	Section 100 Process		
						ר			ida yang ang		inistenensus	(Santy) Europy va	MATERIAL PROPERTY.		NAME OF STREET							
		AND THE PERSON NAMED IN COLUMN TO PERSON NAM	- AND REAL PROPERTY OF THE PRO			ס		NAMES OF TAXABLE PARTY OF TAXABLE PARTY.	1	+	-	+	+	+	+		AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	Mineral	and the second	and the second s		TO STATE OF THE PARTY.
				er every er	٦	6			entenante an	ACHTONICOS (	- Contraction of the Contraction	Manual Control	Market State (1997)	Windows Was	onemetrica							
	OPPOSITE OF THE PROPERTY OF TH				C	ס			1	_	$\dashv$	$\dashv$	-	-			OCTOR AND STATE OF STREET	SANSHARA MUSICAL SANSANDA	A PRINCIPAL AND A SECURE AND A	**************************************	онизмодиния	Professional Confession Confessio
			A CONTRACTOR OF THE CONTRACTOR		G	G			analyticoscy	-	er West (all the party of	idan istraen	mipe de l'innere con qui	expositores	Company of the State of the Sta							
atikka kunggunang					0	ס				CONTRACTOR CONTRACTOR			-			MATERIAL PROPERTY OF THE PROPE		No.	Memory	- CHANGE TO COLUMN SERVICE SER	Septiment of the septim	Per Contractor Contrac
			ANNO ANDREAS PROPERTY OF THE P		0	ی ح		eters a personal community paragraphs	-	-		-	+		+	PARTICINA MENTAL OT SCOOLS INVESTMENTER ENTRE OF SCOOLS OF STATE OF SCOOLS O	(A) Children and Children and Children	ACCOMMODISTICATION AND	- Andrews of the State of the S		PARTICULAR DE LA CONTRACTOR DE LA CONTRA	Parameter
			A CONTRACTOR OF THE PROPERTY O		G	G				<b>_</b>					A SECURITION OF THE PERSON OF							
Transfer		Relin	Relinquished By:					36	-		_	2		9				7	1		MICHIGAN PARTICIONS	and the second
establishment de la companya de la c	N	N)		**************************************			A PROPERTY OF THE PROPERTY OF		-	***************************************		Š	received by.	Dy.				30	Date I lime	eune		AND DESCRIPTIONS OF THE PERSONS OF T
2.		X X Z O Z	Ŷ.			1476	X	A CONTRACTOR OF THE PERSONS AND ADDRESS AND ADDRESS OF THE PERSONS AND ADDRESS AND ADDRESS OF THE PERSONS AND ADDRESS AND ADDRESS OF THE PERSONS AND ADDRESS AND ADDRESS AND ADDRESS AN					***************************************	SPANIE STATE	POTANTAL			NAME OF TAXABLE PARTY O	MANAGEMENT AND ADDRESS OF THE PARTY OF THE P	ACCOMPANY (ACCOUNTS)		and the second
Temperature when Received:	ed:	de la marce de la company	Acce	Accepted:			0			and the second second	- Alexander	)			•	-	AND DESCRIPTION OF THE PERSONS		Chicago de la constanta de la	reterio ferences lapares	200 cast 000 000 000 000 000 000 000 000 000 0	VALUE STATE OF THE PARTY OF THE
Delivered By:	Abbitation reprints a recommendation page.			יי פייני		-	nejecieu		7	)	3	Į	San	90		1	and electronic control of the contro	l	5	Section of the sectio	chair enveragement	
Comments:		de en el este el cinidad de la cinidad d		1	neceived by:		Į,		1	ľ		1	Date:	e e			Tine.	1		ROTE AND ADDRESS OF THE PERSON NAMED IN	***	
	Финанский дамина поличений мерекания поличения выправления выправл	-	And the second s				eprinciples and the first samples	-	hered age of the control of the cont	-		-		-	7	TURNAROUND:		***************************************		The second secon	-	